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THE PHILOSOPHICAL BASIS OF ECONOMICS:*

A WORD TO THE SOCIOLOGISTS.

This paper is a study in social causation. Its aim is to show that the acts of men in society, social institutions, and social changes are the creation of the choices of individuals. Individual choice, however, is governed by the economic law—greatest satisfaction with least sacrifice; greatest utility at least cost.

The fundamental and general science of man's activities, therefore, is economics. Economic science, if it would fill out its legitimate scope, must follow the workings of the

*The following is a summary of the argument: INTRODUCTION.—*The Problem*—The nature of social causation. *Theses*.—1. The sociological point of view wrong. Social causation is psychical, and psychical processes are acts of individuals. 2. The economic point of view correct. The principle of utility or economic selection, the universal law of social causation.

I. *The Psychical Nature of Man's Activities, Both Individual and Social*.—1. Neglect of psychical phenomena by modern science. 2. Reality of psychical phenomena and their separateness from physical phenomena. 3. To deny this reality and this separateness is to deny the possibility of knowledge, for they rest upon the common basis of all knowledge—the unproved but universal assertion of individual minds. 4. The human will as cause.

II. *The Individualistic Nature of Psychical Activities: Social Organization Created by the Individual*.—1. The integrity of the individual universally attested by consciousness. 2. The individual in his three-fold environment; (a) self, (b) social environment, (c) physical environment. 3. The individual, by following his individual choices, creates social institutions and social activities.

III. *Utility, i. e., Economic Selection, the Law of Individualistic Activities: Social Causation Teleological*.—1. Utility, the general principle of individual choice in all activities, whether for preservation or development. 2. "Fitness," as the law of physical evolution, identical with "utility," as the law of psychical evolution. 3. Utility, the principle of economic choice.

IV. *Economics, as the Science of Utility, the Master Science of Psychical Activities*.—1. Relativity of classifications of the sciences. 2. Sciences, physical and psychical. 3. The grouping of special sciences under a master science. 4. Economics as the science of the fundamental principles of psychical activity, is inherently the master science of society.

V. *Sociology, One of the Special Economic Sciences*.—1. Tendencies of sociology and economics contrasted. 2. Sociology not a master science of psychical activity. (a) Its physical point of view unintelligible in a psychical science. (b) Its personification of "society" erroneous, involving negation of the individual. (c) It cannot include individualistic sciences such as economics. 3. Sociology, in fact, the science of social organization, and social organization is a process of economic selection.

economic law into all the lines of man's choice and into the formation and change of all social institutions. The self-conscious, self-willing, self-acting individual is the unit of investigation. Social causation must be traced along lines of psychical not physical forces. Society itself is the creation of choice and choice is always essentially economic. In other words society must be studied primarily in its relation to individual mind—not in its relation to the physical cosmos.

The principle of evolution by which the natural scientist explains the processes of physical change becomes the principle of utility when the processes of social change are involved. Physical processes are fortuitous, unplanned. Man's activities are teleological, economic. In the former, the adjustment of part to part, the "fitness" which survives, are unarranged and unforeseeable; but men foresee and fore-ordain adjustment between their environment and themselves. The principle of utility, as it has been worked out in economic science, is thus simply the principle of evolution seen upon its psychical side—teleological evolution. "Economic selection" expresses the evolutionary process of psychical life.

That science of men in society which undertakes to apply to human activities the physical form of the evolutionary principle rests upon fallacies. Current sociology does not, in general, make man's activities intelligible.

It is, then, to economics, not to this sociology, that we must look for the explanation of social evolution.

I.—THE PSYCHICAL NATURE OF MAN'S ACTIVITIES, BOTH INDIVIDUAL AND SOCIAL.

The science of this century is distinctly physical science. Its results have been mainly achieved by the systematic and widely organized labor of a large number of specialists who have observed and collated facts. The typical scientist is apt to regard any study which does not proceed by first

hand observation of single facts as "metaphysical" and untrustworthy. He scorns philosophy and deductive thinking. He pushes his distrust of the psychical to the extreme of studying only the physical. Matter and its activities are to him the only reality, and no method of research is reliable except induction. Philosophy is a mere figment of the brain. True science sees with eyes, hears with ears, feels with fingers, rests only on tangible evidence. Primary sensations are the only raw truth; inductive arrangement of these the only trustworthy mode of thought.

This tendency of modern science to deny reality to the psychical world, and validity to any but physical tests of knowledge involves a radical fallacy. Rigorously followed out it compels denial of the possibility of knowledge.

All sensation, so far as it results in knowledge, is a judgment of mind, *i. e.*, a psychical phenomenon. The only ultimate criterion of truth for men is the agreement of men's judgments. This is a psychical fact. The postulates of every science are simply concepts universally held, and concepts are psychical facts. This universal agreement may not create the fact, but it is the only final test of the existence of the fact. It creates the *known* fact. Science itself, therefore, is a psychical creation.

The beginning of all knowledge is the recognition of the reality of the individual mind—the *Ego*. If the validity of the primary judgments of this *Ego* be not granted, there is no warrant for the validity of any science. The reality of the physical world is attested by weaker evidence than is the reality of the psychical world. Rather, be it said, the reality of both rests upon the same primary judgment of the *Ego*. The primary assertion "I see," affirms the reality not only of the "seer," but also of the "seen."

Science, then, to get any basis for itself must recognize the reality of the psychical fact—the *Ego*—and the validity of its primary judgments, likewise psychical facts.

This psychical *Ego*, to deny whose existence is suicidal to

science, is the source of various other psychical phenomena which science must study, if it would be consistent. The *Ego*, or the individual mind, thinks, dreams, sings, builds houses and temples and systems of theology. It works in association with other minds, like itself, and produces laws and a political organization and various social institutions. It changes the flora and fauna of the continents. It plans and shapes the destinies of other men. These are all phenomena as real as the flora and the fauna themselves. Yet they are psychical phenomena, neglected by the positive science of the age. The reality of this world of psychical phenomena is attested by the same evidence which science accepts in the case of physical phenomena, the primary assertions of mind.

Scientific research is a sort of legislative process, consisting of the work of investigating committees, general debate, and vote-taking. A majority-vote gives only tentative certainty to scientific "laws." A real "truth" requires practically a unanimous vote. And every promulgated law is liable to change at the next vote. If it were the persistent conviction of ten men in every hundred that two plus two do not equal four, we could not have absolute certainty as to the proposition.

Modern science is not different in its real methods, or in its ultimate tests of truth from the earlier philosophies. It is more careful to eliminate "personal equation." But its great superiority is its democratic character. It seeks so to trace out the line of causation, through the complexity of the whole, into the simple concrete fact, that the relation of this fact to the whole becomes self-evident to all. It is paralleling in the realm of knowledge the march of modern democracy in the state, greater complexity in the mechanism as a whole, greater simplicity in the concrete detail. All scientific laws rest ultimately for their validity upon the affirmative unanimous vote in a universal referendum. Upon all established principles of science a thought universally

appearing is true. Otherwise the postulates of science, its primary facts, may be false.

The same conclusion is reached by assuming the standpoint of extreme materialism, viz., that psychical phenomena are purely and essentially material. Thoughts, thus, are phenomena of matter to be explained by the same laws of causation. A thought is a judgment as to the reality of some thing. As the cause of a reflection in a mirror is the existence of the thing reflected, so the cause of the thought is the existence of the thing thought. Universal thoughts can be explained in no other way. If thought is a necessary product, a universal thought must be a correct thought. This is a *reductio ad absurdum* of the materialistic premise; for the one universal thought is the assertion of the existence of the *Ego*—the psychical individual—and with him the affirmation of various other truly psychic phenomena. The inevitableness of the assertion of mind that the *Ego* exists as a psychic entity, a soul, is the supreme proof of the existence of this soul.

Besides the reality of the psychical world which is thus proved another fundamental primary judgment must be emphasized—namely, the separateness between this psychical world and the physical. To say "I know" asserts the separateness between the knower and the known. The separateness between the physical and psychical, their antithetical character, is asserted by the universal judgment of men. To deny it then is to cut the ground from under all knowledge. Universal thoughts are scientific truths.

In these last years, science has begun to recognize its former unscientific neglect of psychical phenomena and is rapidly directing research into religion, folk-lore, language, arts, customs, governments, industries, and other subjective activities of men. In these efforts, however, science has shown a dangerous tendency to use methods, and to assume points of view characteristic of physical science. This is essentially unscientific. It must be recognized that in studying

characteristic human activities, whether individual or social, we have a new order of facts essentially different from the physical. The distinctively human activities are psychical. Mind is the dividing fact between these two orders of phenomena. Mind acts as a self-conscious, self-willing, self-acting force. It chooses ends and uses means to reach these ends.*

Psychical processes are thus directed by mind toward chosen ends while physical processes go on, independently of any discoverable teleology. Whatever may be the fact as to teleology in the physical world, man's activity is essentially teleological. Science must recognize this fact and must study human activities, not as physical phenomena, but as psychical. Science cannot explain the existence of a railroad in the same manner that it explains the existence of a river. The forces which produced the railroad are not explicable by physical laws. A railroad is a psychical institution. It is a complex of physical forces, it is true, viewed simply upon its mechanical side, and as such can be studied by the physical scientist. But as a railroad it is psychical, and is the outcome of teleological activity. Individual men, conscious of wants inadequately satisfied, have co-operated in making such transformation of physical forces, and such adjustment of human activities that a railroad is produced. Causation in case of the railroad is essentially of a different order from causation in case of the river. The active or efficient cause is the human will.

Niagara may be studied by both physical and psychical sciences. The physicist and the geologist both explain it as a complex of physical forces, irrespective of the existence of mind. The artist, the politician, and the economist, on the other hand, inquire, its physical properties being what they are, how it may be teleologically transformed to serve the conscious ends of life.

*This distinction between the psychical and the physical is well expressed in James' "Psychology," where he asserts: "The pursuance of future ends and the choice of means for their attainment are thus the mark and the criterion of the presence of [mind]."

These psychical sciences are as clear in their scope as are the physical sciences. Mind is no more elusive a fact for science than "matter" or "force." The modern text-books of chemistry and of physics show the same incapacity to state what is the real subject matter of these sciences as do our economic text-books. Not "beginnings," but "processes," has become the watchword of all science. The relative vagueness in economics and other psychical sciences is due not to greater uncertainty as to postulates, but to the greater complexity of phenomena.

What then is most emphatically demanded in the sciences which study men in society, is the clear realization of the reality of subjective phenomena—the same reality recognized by us all in practical life. Public opinion is as real a barrier to crime as is physical force. The politician recognizes that a vote, which is a mere utterance of individual opinion, is a real thing—as real as the stones in the legislative hall. The subtle motives of men which lead them to vote as they do, are measured and directed by this politician. These votes, these motives, are real things, and science must appreciate this as well as the politician.

We are perfectly aware of these psychical realities in the midst of which we live,—public opinion, law, custom, social institutions, traditional morality, courtesy of friendship and of business, customary prices—facts all—intangible creations of the minds of the members of society. The student of political and economic science must likewise get this practical grasp of the fact that these things which make society are psychical forces and no less real than the physical.

All factors in a result are causes, and the human will which organizes physical and social forces to achieve certain results, is clearly one of these causes. Moreover, since it is the one cause which differentiates psychical processes from physical, it is imperative to write psychical causation in terms of human will. The efficient cause is man's choice. To make social activity intelligible to us, therefore, science

must so explain it. To explain the Tower of London by the same principle of causation as the river Thames—as the unexplained fortuitous result of physical forces—contradicts the universal affirmations of consciousness. Science must conform to the nature of the human mind and must thus explain human achievement as to the teleological result of forces guided by human intelligence. Man's will thus becomes the dominating element in social causation.

II.—THE INDIVIDUALISTIC NATURE OF PSYCHICAL ACTIVITIES: SOCIAL ORGANIZATION CREATED BY THE INDIVIDUAL.

It has been shown that the social forces are psychical in nature. It is necessary to show that psychical forces proceed from the acts of individual minds, and how, upon this individual basis, the structure of society is built up and social activities are carried on.

The recognition of the existence and the integrity of the individual is the beginning of all knowledge. "*Cogito, ergo sum*," expresses the fundamental truth of science. "*Volo, ergo sum*," is equally true. The *Ego*—its integrity—and its psychical nature are the best evidenced of all facts. Bound up with the consciousness of self-existence is the consciousness of the power of self-choice and self-action. The power of the individual through his will, causally to shape change in the processes of the mind, is as clear to the consciousness as is existence itself.

The individual with his wants, his choices, and his self-directed activities, is the starting point in the scientific investigation of social phenomena and the end of all social science as well. The reason for this lies near at hand. Since human choice is the large, the controlling force in social causation, we must perforce take the individual as the integral unit, for there is no choice, but individual choice. The term "social will" is an acknowledged metaphor.

Starting thus, an analysis of the relations of the individual

becomes necessary. The individual recognizes himself in a threefold sphere of relations, viz., (1) to himself, (2) to others like himself—the social environment—and to (3) his physical or cosmic environment. The psychical sciences express this analysis. Jurisprudence, for example, studies the operation of the individual will in relation to the individual himself, in relation to other persons, and in relation to things. Psychology, likewise, treats of the individual mind as having knowledge of itself and of the external world, consisting of other minds and of physical nature. In ethics, also—the science of ultimate harmony in choice—the relations of the individual will are studied with reference to harmony with itself, with other wills, and with the Absolute—the whole non-human world.

Economics, like all the psychical sciences, rests upon this fundamental antithesis between the subjective and the objective view of the world. It studies the relations of the individual regarding the satisfaction of his wants, in utilizing himself, society, and nature. The traditional economics has dealt little with the individual's economic utilization of himself. The satisfaction which a man feels with his own mental and physical powers, the pleasures of athletic exercise, the self-contemplation of the religious devotee, are, however, economic satisfactions and would have place in a complete system. Man's utilization of other men has, likewise, been very inadequately treated by economists. "Society" is a great field for economic exploitation by the individual. Direct personal service is an instance of the economic utilization of some men by others. When the president of a railroad finds that the production of a crop of laws is one of the most profitable uses to which he can apply his undertaking skill and his capital, the transaction is as distinctly economic as when he puts skill and capital into the physical construction of his railroad. The tramp and the burglar, living as parasites upon the rest of society, are clearly within the field of economic study. Into whatever

region the individual man turns to seek satisfaction for his wants, the economist must follow him and describe and explain what he does. The satisfaction which the friendship of his fellow yields a man is an economic satisfaction. Some men live and work mainly for the esteem they gain.

Society, then, is a part, in a highly developed civilization the larger part, of the external economic world of the individual. Few of us habitually touch nature at first hand. It is through social organization that our lives can be rich. Economic science must study these psychical realities just as the economic man utilizes them in actual life. He cannot assume a social standpoint simply and say that the whole field of economic activity is nature. There is interplay at every point between the satisfaction which flows from physical nature to man and that which individuals draw from direct contact with other individuals.

Economic forces, thus, in their last analysis, find their beginning in the minds of individuals. Individuals feel wants, recognize their environment, judge of the means necessary to attain satisfaction of these wants, value the relative importance of various satisfactions and the disagreeableness of various efforts involved, make choices accordingly and pursue those ends. Whatever be the force of public law or opinion, it stands as an objective fact to the individual, just as real as the laws of the physical world, and must be dealt with by the individual as a part of his environment. It contains sources of satisfaction to him or hindrances to his satisfaction as the case may be. The market price of food may force the hungry man to starve close to full storehouses of food, just as truly as if he were five hundred miles from food, adrift on the barren sea. This market price has importance solely with reference to its effects upon individuals. And again, this market price, while an objective fact to every individual as regards his personal wants and their satisfaction, is itself resolvable into the valuations of the individual minds making up the

market. There is no such unity in society that we can speak of a social will, irrespective of the individual wills, which decide and move the whole mass. All social action is a resultant of the forces set in motion by individual wills, and science can only explain these activities by tracing them to their starting point in the choices of individuals.

Not only are social activities best explained by resolution into the acts and choices of individuals, but the very structure of society itself—the social groups—must be so explained. The family, for instance, is the result of the choices of individuals. The lines of causation of political and religious groups and institutions run out from individual wills as their starting point. Not only so, but they are maintained and persist only in the persistence of such choices. The state is nothing other than a series of associated choices and acts of individuals. It is only a part of one's self which is present in the state. The state is maintained only as individuals continue to act together in certain relations. In such sense, the "social compact" theory is true. Any explanation of the state which does not find the causes of its existence and its development in the conscious acts of individuals does not find the distinctive nature of social causation. The same country, physically considered, is the home in historic succession of very different nations. The difference is due, not to the character of physical surroundings, but to psychical differences. It is not even biological differences between the North American Indian and the European which have changed the course of history in this continent. It is the psychical differences of the two peoples. Again it is the psychical differences between the Spaniard and the Englishman which have made the latter the successful colonizer of America. Further, at every stage of growth of English settlement in America the form of government, the nature of the political organization, are only to be explained by analysing the facts backward into the choices of the individuals concerned. They have,

at every step, made the state. They have changed it and developed it. A state is thus built out of human choices. Its nature and its fibre are subjective. Political structure is nothing other than a system of habitual choices of the individuals who constitute it. It is nowhere physical or tangible. It cannot be squared to the tests of physical science. The stuff which makes it is the desires and the will of its individual constituents. We understand this as practical politicians. As scientific sociologists we befog it with metaphors about the body politic.

There is no grouping of individuals into family, religious, political, or industrial bodies which merges the wants, the interests, the capacities, the choices, the activities of the individual in the life of the body. Always and everywhere the individual stands alone. The kernel of his life is in himself. The very idiot has an individuality which initiates action upon his part and which the rest of society respects. Not even conjugal love robs wife or man of that egoism which is the larger essence of manhood. All religious and political systems, all associations of men which have not been based upon this eternal separateness and initiatory power of individuals have failed of large progress. That religion and that political philosophy which preach the individual will as the unit of responsibility and the final arbiter—protestant christianity and democracy—are to-day holding in their hands the potentiality and the responsibility of the world's progress.

All consumption is individual. It cannot be "socialized." A painting in a public museum is not socially consumed. Each individual *alone* finds in it the satisfaction of his æsthetic want. All consumption resolves itself into appropriation by the individual of goods fitted for his use. Consumption is a psychical act and as such belongs to the individual.

In law, no other principle than individual responsibility has been found adequate to maintain order. The stability

of civilized society rests upon this principle. In education there is no vicarious acquisition of knowledge. The development and realization of every life rests ultimately upon its own choice. The psychical structures which we call social institutions are simply individual choices hardened into habits. The science of social man must stick closely to this fundamental fact and build upon it.

III.—UTILITY, I. E., ECONOMIC SELECTION, THE LAW OF INDIVIDUALISTIC ACTIVITIES ; SOCIAL CAUSATION TELEOLOGICAL.

Is the individualistic explanation of society, found in the classical economy, adequate to explain social evolution? It was the impulse given to scientific thought by the theory of evolution which gave us the "historical school" of political economy and the modern sociology. It is not, however, difficult to show that this principle of evolution wrought out in the physical world has been applied with crude haste to psychical phenomena, and that what is now needed is a simple return to the older economics to find the true principle of psychical evolution. It was Malthus' doctrine of population, indeed, as Darwin himself confesses, which gave the great naturalist the principle expressed in his evolutionary formula, the "the struggle for existence" ending in the "survival of the fittest." Now the essential principle in the Malthusian doctrine of population is that social evolution depends on the choice of the individual in respect to his use of the processes of re-production. Social evolution—its direction and its rate of movement—is dependent on the relative estimation put by individuals upon present pleasure or future welfare. Again the general evolutionary formula of Herbert Spencer, concurrent differentiation of parts with integration of the whole, is nothing more than a generalization of Adam Smith's principle of division of labor. In Smith's treatment is contained the principle that social evolution in material welfare is dependent upon the efficient

growth of division of labor. This evolutionary agency of division of labor is merely the application in complex production of the principle of utility to the individual.

In applying the physical formulæ of evolution to psychical phenomena, sociologists are guilty of unscientific procedure. True science adapts its formulæ to the matter in hand. The physical formulæ of evolution are statements of unexplained fortuitous change. The "fitness" which survives is an unforeseen fitness, an adjustment wrought out in consequence of the struggle. Psychical activities on the contrary are essentially teleological. They are directed to ends. The "fitness" in social adjustments is foreseeable, prearranged. Further than that, this fitness is nothing other than "utility" to the individual. The individual, seeking his highest utility, chooses those means which are fit. The principle of utility is the principle of evolution in the psychical world. The general economic law—the pursuit of the greatest utility with the least sacrifice—is simply the psychical form of the physical law of evolution—the survival of the fittest. The "fitness" of physical evolution is adjustment which enables persistence and growth. Such is likewise the "utility" of psychical evolution. The difference between the two is that the science of physical evolution regards environment as dominant, and speaks of the fitness of the subject to be adapted to the environment, while economics regards the environment as servient, and calls by the name of utility the fitness in environment to be adapted to the subject. Utility is the subjective name for fitness, and fitness is the objective name for utility.

This utility which explains not merely the activities of men at any given time, but their evolution as well is identical in the long run with the utility of the economists. Yet all forms of choice can be expressed by this term. The religious motives of men are measurable against the wealth-getting motive. Practically men decide every day the relative worth of uprightness and wealth, and they decide this upon

the principle of utility, that is, upon the relative amount of want satisfying power in the two courses of action. The quality of the two wants is, of course, considered but the mind finds some means of estimating their value.

College professors have been known to regard the sum of large honor plus small salary attached to a chair in one university as more than an economic equivalent for large salary plus small honor in another university. The Founder of Christianity raises the question whether there is greater profit in gaining the whole world or in saving one's soul. The principle of choice is always the same, viz., the weighing of the relative worth of two courses of action. The analysis of this process of choice has been worked out more fully and satisfactorily by the economists than by any other body of scientists.

This point should receive further elaboration, but let it suffice to say here that all forms of want, æsthetic, ethical, physical, are commensurable as motives in the individual mind. The term want is generic and applies to all human desire. The corresponding term utility is also generic and applies to all things capable of satisfying want. This is the plain fact of life. Our science must recognize it.

Utility, then, as the evolutionary principle, shows itself in the quality of man's choices. If he is narrowly egoistic he finds greater utility in satisfying those desires which are centered in his own person. If he is patriotic he finds more utility in devoting his life to his country's service. Again, if he is short-sighted, he finds greater utility in satisfying immediate wants. If, however, he appreciates the future, he plans far ahead and builds up great social institutions, such as capital, the division of labor, and the state.

The direction of social change depends thus upon the utilitarian choices of individuals, and these choices are in their last analysis economic choices. In other words the economic law—greatest utility with least sacrifice—is the generic law of human activity, both that which is directed

to preserve the status and that which aims at social evolution.

IV.—ECONOMICS, AS THE SCIENCE OF UTILITY, THE MASTER SCIENCE OF PSYCHICAL ACTIVITIES.

The universality of the principle of utility as the determinant in human choice has been established. Utility has likewise been identified with the generic law of economic life. It is necessary to classify the sciences from this point of view.

The separation of phenomena by our consciousness, in its primary judgments, into the two classes, physical and psychical, compels a corresponding division of the sciences.

Since the only function of science is to make the world of phenomena intelligible to men, definition and classification must be relative to the forms and modes of human thought.

The essential form of thought, as we have seen, is the antithetic opposition of individual subject (*Ego*) to object. As the individual generalizes this mode of thought he admits into the category of subject other minds, and thus the general antithesis is reached between Mind and Matter. The recognition, then, of the fundamental difference between the psychical sciences and the physical is the first step in the classification of the sciences.

The physical scientist, with strange inconsistency often proceeds upon the hypothesis that the mind is in some way outside the natural order of things. He sometimes forgets that the nature of mind is the most fundamental fact in all knowledge and imposes itself imperatively upon science. Universal judgments are, then, not negligible phenomena, as he would sometimes have us believe, but are the very warp of science. Conformity to the nature of thought is then the final test of science.

Another principle of classification of the sciences, imposed by the nature of mind, is the grouping of special branches of investigation under certain general sciences. The mind

can understand the multitude of things only by seeing them in synthetic unities, from certain central points of view. The necessity for this appears equally real from the history of science. The multitude of special sciences, for example, which deal with the physical world have been gradually brought into a system under three general or master sciences, physics, chemistry, biology. With the progress of knowledge the master science becomes a body of fundamental principles forming the framework of all the special sciences in its group. The principle of classification is not a division of the field among these master sciences, but rather the assumption of characteristic standpoints. Physics studies all matter in its physical activities; chemistry studies the chemical phenomena of all matter; biology studies matter alive. It is apart from my purpose to define "physical" or "chemical" or "alive," but I wish to illustrate the truth that all these general sciences may study the same facts and that the scope and limits of such sciences depend on the point of view, on the kind of relations to be observed. It is enough that from these three points of view the world of matter is made intelligible to us. The standpoints assumed by these sciences are, to the men of our day, naturally chosen to give a picture of the physical world at once complete, minute and harmonious. The long process of science and philosophy thus gives to every age a co-ordination of knowledge fitted to the intellectual needs of the age. The requisite harmony in the view of the world can only be gained by simplicity in the general plan of scientific classification. There must be only a few general points of view, the relations between which can be easily grasped. Hand in hand with the multiplication of special lines of scientific inquiry goes this synthetic tendency toward the organization of all sciences into systems.

In the psychical sciences, likewise, certain general points of view are assumed, from each of which the whole world of fact can be observed. Here, also, the fields of inquiry may

overlap, and the different sciences may study in a measure the same facts. Each general science, however, has a different set of relations to establish. The aim of psychical science must be to choose such general points of view that the relations between them are naturally understood. In this way the whole world of psychical phenomena may become clearly mapped out and rendered intelligible.

Indeed, it would be found that the same necessity exists of ultimately co-ordinating the physical and the psychical sciences. Both the physical geographer and the economist must study the results of the destruction of the forests by man. In case of the former, however, the point of view is that of the physical development of the earth, mind being studied as a merely physical cause; while the economist takes the standpoint of the economic development of man, mind being studied as a self-acting power which can change its course of action by its own choice, if it judges that the destruction of the forests works greater harm than benefit to man. These two radically opposed points of view may be harmonized by the assumption of an ultimate and essential unity in both orders of phenomena. Man reaches his highest happiness only by conformity to the requirements of this ultimate unity. While the economic man adapts the material forces in the forest to his own uses, he is seen to be the greater economist the more he recognizes the necessity of so limiting his present desires that the forests shall not be prematurely destroyed. In other words, he must adapt himself to the deep lying laws of forest growth, if he would make the largest use of nature. This is the line along which the great questions of economic progress recur. Here lies the heart of the problems of capital, of division and organization of labor, of individual or governmental control. Here, too, arises the vexed confusion between economics and ethics.

What, then, are these general psychical sciences? What place does economics hold in the scheme?

Psychology is the first of these sciences. The natural order of psychical activity is to know, to choose, to act. Consciousness first knows. It knows itself and its environment.* Psychology, thus, is the science of *knowing*. Even the anatomical and physiological studies of modern psychology are all from the point of view of learning how consciousness knows. Its physical studies start from the psychical standpoint. It is manifestly a psychical science throughout. Psychology deals with the nature, the mechanism, and the processes of consciousness itself. The psychological sciences form an ever increasing group of special sciences having the common aim of making clear the nature and methodology of knowledge.

The next of these general psychical sciences studies mind *utilizing* its environment. Utilization includes the processes of choice or valuation and of action, or the use of means to gain the ends chosen. The intellectual necessity of our time is a general science dealing with man's chosen activities—a science of practical life. Various sciences have dealt with parts of the subject. History, ethics, law, politics, political economy, and sociology have all groped forward in this direction. The time has come, however, for a master science which shall group together in a common relationship all these special inquiries by giving them a common starting point and method. Psychology may be relied upon to do this for consciousness itself, for man as a *knowing* thing. A new general science is needed to do this for man as a *practical* thing, for consciousness in action.

My claim is that such a science must explain all the conscious activities of men by reducing them to terms of the motives and choices of the individual consciousness. My further claim is that economics is pre-eminently the science fitted to hold this place. This science must study the

* "Psychology" says Professor James, "the science of finite individual minds, assumes as its data (1) thoughts and feelings, and (2) a physical world in time and space with which they co-exist and which (3) they know."

interaction of all motives which lead to choices and actions. It must reach the fundamental laws which apply to man's entire practical activity. All human self-directed conduct proceeds from choices which are valuations as to the relative good in certain courses of action.

In spite of the failures and the incompleteness of economics, it has gone farther than any other science in laying down the laws of value. It has developed in a very important branch of human conduct the fundamental laws of valuation. The "classical" English political economy, starting with one or two fundamental motives of man, wrought out a system which, within its limits, admirably expressed in scientific form the actual conduct of men. This system was attacked by the so-called "historical school" for the inadequacy of its premises, the faults of its method, and the narrowness of its field of observation. This critical attack was, in large part, an impulse from the scientific spirit of the age. It was just in the main, and successful in the main. Yet the historical school was simply a reformation of the older economics and did not destroy its continuity. The latest economics is strenuously re-examining the laws of value, using the results of that wider observation, the more scientific methods, and the larger premises called for by the scientific critics of the old economics. The "Austrian economists" and other founders of the "new economics" belong, at once, to the old "classical," and the modern "historical" schools. This it is which makes the present rejuvenescence of economics so full of promise.

The rallying point of this "new economics" is the marginal utility theory of value. The chief service, however, rendered to the science by this theory lies not in its direct importance as an explanation of value, but much more in its indirect results. It contains the logical necessity of finding the motive power of all economic life in the consciously felt desires of men. It shows that the bond

of unity in all economic phenomena is not wealth in the sense of physical things, but wealth as constituted by human desire and choice. It involves the existence of an economic utility and an economic value which are distinct from physical or mechanical utility and value, and which are in a true sense subjective, the creation of the mind. It involves the reality of these subjective facts and makes them the primary objects of economic study. A price, a vote, a credit, a preference to work an hour longer and gain an extra return, a passion for a ring of yellow metal, the reverence which rears a temple, a deliberate choice of a boy at eighteen to devote his life to the study of science instead of to the plough—such facts it shows to be psychical realities to be objectively studied. It involves the necessity of psychical measurements for these psychical facts, showing that no practicable measurement of motive exists but in human choice. It shows the possibility of exactness in such measurements by reducing these choices to valuations made in the unity of the individual consciousness between opposing forces.

Every man, economically considered, is both a wanter and a worker, a consumer and a producer. The same consciousness recognizes want and satisfaction; the same mind estimates the relative strength of motive power in an unsatisfied want and in the labor necessary to satisfy it. In this is also involved the teleological nature of economic activity. Economics deals with wants consciously felt, resources consciously perceived, and consciously directed to the end of gaining conscious satisfaction. It involves also the necessity, for the scientific explanation of value, of tracing motive back to its operation in the consciousness of the *individual*. In this theory also, as in the work of the "historical" school, is involved a bewildering extension of the scope of economics to include much which ethics has heretofore claimed, to take in, ultimately, the whole range of human motive.

The logical necessities of this new theory of value, even in its moderate form, involve all that this paper contends for. But, after all, this was all likewise contained in the economics of Adam Smith and of the classical school.

It has been shown that any adequate science of man and his conduct must find the initiative of that conduct in the individual will and its motives. No general science has yet studied the whole man from this point of view.

History suggests itself as a science capable of the requisite generalization. History studies all the activities of man and seeks to explain his whole psychical evolution. The standpoint of history is, furthermore, the right one. In history the will of the individual is the initiative, and all the achievements of civilization are the chosen ends of men within the limits of their environment. But history cannot deal with present or with future. History in fact is not one science but only a part of all sciences. The general science of man must study present conditions, must form forecasts and policies for the future. This, history proper can never do. History has, besides, no principle of cohesiveness. Art history, political history, industrial history, literary history and all other histories are, separately considered, simply parts of special sciences which we call æsthetics, politics, economics, and the science of language. The only unity is when they are grouped together in a so-called philosophy of history. No philosophy of history has yet wrought out a common system of fundamental principles which underlie all these varied lines of human conduct and give essential unity to man's whole psychical nature and activity. Such a philosophy of history is what we seek. When we find it, it will be a part of that general science now needed—the part which explains past evolution.

Neither law nor politics can furnish the basis for the master science we seek. However fully they are based upon the actions of individuals, they do not deal with individuals as such. No law, no politics, exist where an individual is

considered as alone. No general science of human conduct can ignore the solitary individual, although a solitary individual never exists. These sciences are special inquiries into the forms of association of men in society.

Æsthetics, economics, in the ordinary sense of the term, and ethics are sciences similar in many ways. They deal primarily, directly, and fundamentally with the feelings, thoughts, and judgments, of individuals with respect to their environment. They all, likewise, trace, or attempt to trace, the way in which these individual mental processes become general social laws, in accordance with which masses or groups of men have the same feelings, thoughts, and judgments. They all express their laws in terms of conscious harmony between the subjective and the objective, between mind and its environment. The difference between them might be broadly stated thus: æsthetics seeks the laws of harmonious sensation. In pure æsthetics there is no outward action. The time is always the present. Given a certain mind and a certain environment, what harmonies does that mind perceive or feel between itself and its environment? This is the inquiry of æsthetics. Economics, however, studies this mind as seeking to adapt its environment to itself so as to produce the greatest harmony. The imperfect harmonies are felt by the economic man as wants and he undertakes to adapt the world to his nature, to change his environment so that it will completely satisfy these wants. His ideal of complete harmony he attempts to reach in this way. He looks into the future. His will is active. He dominates his environment.

Ethics might be called the science of ultimate or universal harmony. It studies this mind as conscious of lack of harmony in its own constitution and as seeking so to change its own tastes and wants and capacities that it shall reach harmony with the laws of its environment. Ethical rules thus appear as obligations, something which the free man should choose. It imposes the obligation of self-culture

and racial progress. It subjects the individual self to the will of the larger, the universal self.

These three sciences remain, however, in a very intimate sense, parts of the same line of inquiry. *Æsthetics* has both economic and ethical branches. The sentient mind seeks ways and means of so presenting its environment as to produce the greatest pleasure from present conditions. So far it is economic. The *æsthetic* man recognizes also the obligation of self-culture, of so adapting his nature to the universal laws of harmony that a higher level and greater fullness of happiness may result. This is ethical.

Ethics likewise is in part *æsthetic* and in part economic. Whatever ethical theory be held, the ultimate ethical law comes back to a perceived or felt harmony between the individual and his environment. This is the sole ultimate test of ethical law and it is *æsthetic* in character. The ethical man, likewise, in so far as he strives to adapt society to harmony with his own nature is doing an economic work. Economics, also, is partly *æsthetic* and partly ethical. The laws of human enjoyment upon their *æsthetic* side as well as upon their economic side received attention in the early discussions of luxury by economic writers, and no economists have been able to banish ethics entirely from their treatment of capital. The higher ethical character of the conduct which looks to remote results is a part of all economic teaching. It is chiefly in consumption that the *æsthetic* and ethical affiliations of economics appear most prominently. The relative degrees of satisfaction derived from different modes of consumption are distinctly a study in *æsthetics*. An *æsthetic* judgment is adopted into economics. The problem of harmonious consumption is plainly *æsthetic*. Likewise the economic man who consciously controls his wants, represses some, and develops others, with a view to increasing his ultimate happiness or benefiting his family or his country, is doing an act clearly ethical. He is adapting himself to his environment to

make larger the ultimate harmonies of life. These sciences are too similar in subject matter, in method, and in aim to be kept apart. They are, in reality, one science, and should be recognized as such. Economics is the fittest of the three to absorb the others. It has shown the greatest capability of being generalized. It has developed farthest the laws which underlie the facts studied by them all. They are all sciences of *values*, estimates of the relative importance to us of various things which environ us. They are all sciences which deal with the means of realizing the highest satisfaction by harmony between ourselves and our environment.

Æsthetics does not treat conduct in sufficient prominence to make it capable of covering the general field. It is rather the border land between psychology and economics, between knowing and doing.

On the other hand the ethical standpoint is too narrow. Ethics applies the laws of utility only as relative to ultimate ideals and does not deal with wants as absolute. The means of living, physical and non-physical, most important and largest part of the thought of many people, are only indirectly within the ethical point of view. Self-initiated changes in wants are ethical. They seek to adapt the man himself so as to realize the potentialities of higher happiness in more complete harmony with the universal environment. Ethics is, in reality, the final volume in the general system of economics.

Æsthetics and ethics occupy two extreme positions between which lies economics. Economics has already shown its ability to absorb a part of both sciences and it puts the emphasis of thought where men in actual life put it.

Economics has first been studied mainly in regard to material goods. In these investigations certain laws of valuation have been discovered which give scientific form to our knowledge of human motive. It has become very clear however, that value is a wider term than material

goods, that economic motives act both in the field of material and of immaterial values. It seems inevitable that economics must ultimately include both fields. All attempts to confine "wealth" to purely material things have really failed. All pleasures, all values, all choices, all teleological activities are, in fact, chosen and followed upon principles which economics alone has explained in a scientific manner.

This is the necessary logical outcome of the premises assumed by writers in economics since it became a distinct science. Should this logical tendency reach its legitimate end, the sciences would be classified according to the scheme presented in the following table:

A. PHYSICAL SCIENCES. Studying phenomena from the standpoint of matter (unconscious) and in motion (fortuitous or non-teleological).	Physics Chemistry Biology	General sciences or master sciences, the principles of which apply to many special sciences. A group of chemical sciences, for example. Certain special sciences may be composite and belong, in part, to two or more master sciences.
B. PSYCHICAL SCIENCES. Studying phenomena from the standpoint of mind (conscious) and its activities (teleological).	Psychology, Master science of mind as knowing. Economics, Master science of mind as utilizing. Science of utility. Science of practical life. Includes : Æsthetics, <i>i. e.</i> , the science of motive sensations, Economics, in the narrow sense of the science of adjustment of environment to subject, and Ethics, the science of adjustment of subject to environment.	

It is claimed for this classification that it presents a simple scheme which is yet comprehensive enough to give a place to all the sciences which deal with psychical phenomena. No attempt has been made to carry out this classification into all its details. This would be out of place in a paper which aims to give only the outline of the subject. The relation of the new science of sociology to economics is a subject, however, of great practical importance, at present, and I wish to devote a few final pages to that topic.

V.—SOCIOLOGY, ONE OF THE SPECIAL ECONOMIC SCIENCES.

The new science called sociology is begotten of the modern evolutionary idea. The leading tendencies shown in this sociology have been (1) the assumption of a physical standpoint, with the use of physical analogies and formulæ in explaining man's activities, and (2) the assumption of "groups"—of a vaguely conceived "society"—as the primary fact to which the individual appears as secondary. Human action is made to start in the social group, go forward through the individual, and work out its effect upon the group. And this activity is conceived as governed by the law of physical evolution and as working onward to unplanned results.

The tendencies of economics are in direct contrast. The economic individual initiates action, he uses society or the social group as his means and he achieves an end for himself—an end fore-ordained by himself. The evolution is, thus teleological, and social institutions and groups persist or change according as they have "utility"—fitness, that is, not in the physical sense, but fitness as seen by the individual subject. Individuals, thus, are the primary fact and society exists by them and for them, while to the sociologist the primary fact is society which makes the individual and whose ends the individual serves.

This contrast between the two points of view may be well illustrated by a brief sketch of the historical origin of the two sciences. In the modern revival of industry, which was connected with the revival of learning, came a flood of particular writings upon special features of industrial life, especially as connected with the state. The mercantile writings are a collection of such literature. For a long time the word "economy" had been in use in its strict literal sense as the regulation of estates or households. It came finally to be recognized in those new writings as applying to affairs of state, "political economy" being conceived of as a body of rules governing the conduct of state affairs. The general inquiry in all these writings was how best to exploit resources in the interest of the nation. It was part of a national struggle for existence. The national resources were the soil and other natural riches, population and commerce as a means of exploiting the lands and peoples of other nations. It finally became clear, however, that the prosperity of the state rested, not so much on exploitation either of the home population or of foreign nations, as upon the prosperity of the people themselves. "*Pauvre paysans, pauvre royaume ; pauvre royaume, pauvre roi.*"

This new economic doctrine developed side by side with the similar doctrine that the political power and prosperity of a nation rested on the political freedom and importance of the people as against absolutism and aristocracy. In other words, it became clear that political economy or state housekeeping and private economy or private housekeeping were indissolubly bound together in fact and hence formed parts of one general science.

This appears undeniably in Adam Smith's book. The title indicates that it is primarily a book on public economy, but the larger part of the work is devoted to a discussion of the general laws of industry or the economy of the people, while in the fifth book only he treats specifically of the

public or state economy. In the "Wealth of Nations" we have already reached a recognition of a general science of economics which systematizes the laws underlying the economic activities both of individuals and of the state.

Furthermore, this general science is conceived by Smith as studying the operation of the motives of individuals in leading to the activities of individuals and of societies. Society and all social activities are treated as resting on ultimate bases of individual thought, choice, and deed. Smith and his followers studied mankind as made up of individual units. Social groupings were secondary, not primary.

Political economy at first applied to political groups of men. The study of industry, however, led men to see that another sort of group was possible—a "society" the members of which were held together by natural needs of economic organization and which did not necessarily coincide with the political organization. This industrial society, no less than the political, was regarded as finding its unity only in the abstraction of the common things of the individuals composing it. Its activities could be explained only by tracing them back to their origin in the wants and actions of individuals. The whole philosophy, political and economic, is summed up in the words *commonweal* and *commonwealth*.

In Adam Smith, likewise, the deeper thought is that the economic quality of things is the creation of man's want and labor. Nature gives, indeed, but only to him who wants and works. Man's wants, man's labor to satisfy these wants, man's happiness as the end to be attained, these are the things studied in the "Wealth of Nations," this is the standpoint from which even the laws of the physical world are investigated. Natural law furnishes deep, underlying forces and limits, conformity to which is necessary to attain the highest good, but the origin and measure of economic things, of the utility which is the

subject matter of economics, are found, not in nature, but in human labor, in the choices which make men work. To Smith economics is not a physical science. It is a science of man, of psychical life. This, I say, is the deeper thought of the "Wealth of Nations." These views, the individualistic view of society and the psychical nature of economic life, still dominate the science of economics.

There is an opposing view of society which has had a long history—the view which regards society as a real unit and as explicable upon the principles of physical evolution. In its latest development this theory regards society and not the individual as the unit which initiates action. However early this idea appeared, it became clearly grasped and vigorously urged as the foundation of the science of human affairs only after the doctrine of evolution came to be applied to historical growth. The studies of the early part of this century in history, jurisprudence, ethics, and historical economics—of race development, in a word, became crystallized in a conception of mankind as made up of social groups, each self-acting as a true unit. A science of society, or sociology, was outlined under which would fall, as subdivisions, politics, ethics, history, æsthetics, language, religion, philosophy, in short, every science which deals with psychical phenomena.

This conception of society and of the relations of the sciences is widely current to-day, owing especially to the influence of Comte and Spencer, and, in a lesser degree, to the writings of the "German school" of economics. The most powerful cause for the prevalence of these views is undoubtedly the influence of modern physical science. So soon as the individual man comes to be looked on as an automaton moved solely by the forces of matter, the significance of these activities which seem to be initiated by the free will of men is lost. The bonds which unite men in society are regarded in the light of physical forces. Biology sufficiently explains the individual. A new physical

science is needed which shall deal with men in groups. By an easy application of a biological analogy, the group is regarded as a biological individual, a true organism in the biological sense. Thus the sciences which deal with man's psychical life are forced into line with the physical sciences and the integrity of the individual is lost, and an abstract entity called "society" is furnished by a positivist science, with invisible and intangible organs of individuality and with all the functions and capacities of a metaphysical soul.

This tendency of sociology to explain society by extending the operation of the cosmic laws of matter beyond biology into the psychical phenomena of society and thus to work out a physical science of society is really unintelligible. It does violence to our primary judgments. The individual mind feels that its integrity and its existence even are destroyed if this be true. The universal testimony of consciousness is—I feel, I think, I choose, I act, I direct external forces, I create. If these universal dicta be errors, we have no warrant for the truth of the axioms of mathematics, or even of the primary sensations. Only by assuming the validity of the assertions of men that they see such and such things do we get any basis for science. Only by acting upon the validity of such assertions do we make such arrangements that we can continue to get the things necessary for our life. Thus the practical necessities of life impose upon us the necessity of recognizing the truth of these universal primary judgments of consciousness. Also the necessities of our psychical nature require the same assumptions. That is, if we are to have scientific explanations of the world, we must assume as true these primary judgments upon which science is built up. Equally must the validity of the processes of reasoning be recognized upon the same grounds.

A general science of man in society must assume as its basis various universal judgments of this character. Such

judgments are these: I am conscious of myself, therefore I exist; I perceive other things, therefore other things exist; I want, therefore I have relation to other things; I perceive force outside of myself—the physical world; I perceive power in my mind to direct this force; I perceive other individuals like myself—society; I perceive limits to my power—that other persons can control me, that the physical world can compel me; I perceive that I can organize this physical world and this society, and through this organization gain the satisfaction of my want.

Sociology, in not taking this view of social causation thereby violates the most fundamental of axiomatic truths.

Sociology is further defective in that it personifies the group. The logical outcome of the sociological point of view is the negation of the individual. This need be only referred to, in this place since it has been adequately discussed above. If it be denied, however, that sociology does thus destroy the individual and if sociology aims in fact to explain the individual, then its name is a misnomer. At the best, the term "sociology" expresses but one side of man's conscious activity, and largely obscures the work of the individual. It would be equally consistent to call the science "individualology," since upon any theory all social activity is made up of the organic activities of individuals. If the science is to explain man in society, the name "sociology" does not express its true content.

Another more important indictment of sociology is the following:

Sociology cannot make good its claim to be the master science of man's activities, for it studies man simply with reference to his association with other men. It cannot include the sciences which assume the standpoint of the individual and explain man's actions always in terms of the individual. Such sciences as ethics, economics, and politics, which regard human affairs as resting upon the initiation of the individual will, cannot be classified as

sociological sciences. They do not have their ultimate foundation in the facts of association. But the essential fact in sociology is association. The group is primary in sociology, while in these sciences the individual is primary.

This inadequacy of sociology appears clearly in considering, whether, upon its established principles, it can include economics. If there were only one man in the world there would be no place for a science of sociology. If there were only one man in the world all the fundamental things of economics would still remain. Goods, utility, value, labor, capital, wealth, wants, consumption, production, dynamics. These are facts in the economic life of every man, not only as a member of society, but as a solitary individual. Money would not be needed, but a measure of value would, else the labor of production would not be economically adjusted to different processes. For the same reason the fundamental processes of distribution would still go on—according to the changing returns of labor and capital in various enterprises, shifting of labor or capital would continually be necessary in order to equalize marginal returns. The solitary man, if wise, would continually increase capital to reward his labor more richly.

The fundamental object of inquiry in economics is not the methods or processes of industrial association between man and man as the sociologist would have us believe. It is rather the problem which arises always where mind confronts matter—the problem of the utilization by the conscious subject of the external object—the problem of the wantner working to satisfy his wants. If this economic man be solitary in the world, he utilizes the world. If he be a member of a group of other men, he utilizes both the world and these other men, and out of the interplay of these various activities of the different members of the group grow the laws of economic society. Individual or society, the bases of economic life are the same, and we must look for

them in the psychical nature of the individual mind, consciously utilizing its environment—here is a bond of unity for a master science of practical life as simple and obvious as the protoplasm of general biology. To economics not to sociology must we look for the general science of man in society.

Current sociology is, I believe, beginning to recognize its limitations and is more and more coming to accept the view that it is the science of social organization. As such its endeavor is to explain the relation of the individual to society, to trace out the workings of the psychic acts of individuals as they build up groupal structures, establish social institutions, and lead forward social change. As such it also studies the re-actions of social groups, social institutions, and social change upon the individual.

If this be true, sociology falls into place as the master science of a large group of special economic sciences, those dealing with the methods of human association. It would be nearly co-incident with politics taken in the most widely generic sense of that word. This point needs fuller development than can be here given to it. Its validity, however, appears in the consideration that, as previously shown, social organization is a process of economic selection. The groups which constitute the concrete forms of organization are held together by the economic choices of individuals. Changes in the groupal forms come about likewise through changes in individual choice. That utility which economics has analyzed and explained is the causal principle running through all social processes. And these social processes only become definite and real to us when we conceive of them as made up of individual teleological acts. The term "society" is a convenient methodological symbol which we employ for certain purposes of reasoning and which must again be translated into terms of the individual before the matter is intelligible.

We are thus enabled to come back to the theses with which we began.

To make society intelligible we must accept the principle of economic selection, or utility, as the universal law of social causation, and, in our science of society, we must abandon the unscientific attempt of the earlier sociology to wrest the laws of physical causation into an impossible explanation of the teleological phenomena of men in society.

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